Form 2930-2 (January 2011)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

# SPECIAL RECREATION PERMIT

(43 U.S.C. 1201; 43 U.S.C. 1701; 16 U.S.C. 460L-6(a); and 43 CFR 2930)

Permit No.	
Perinit No.	
DOI-BLM-UT-C010-2015-0063-CX	
BLM Issuing Office	
BLM Issuing Office CCFO	

Permittee Southern Utah University	
Authorized Representative Sean Heiner	*
Address 351 West University Blvd., BU 303 D	Phone Number (435) 865-8067
Cedar City, Utah 84720	Email Address seanheiner@suu.edu
	Web Site http://suu.edu/business/aviation/
Permit is for (check all that apply):  Commercial Competitive	☑ Organized Group ☐ Vending
Date Issued <u>10/11/2015</u> Date Expires <u>10/11/2016</u> (To	erms greater than one year subject to annual authorization.)
Seasonal or other period of use limitations Limited to the model port	schedule and conflicts of use.
Permit Fee Formula Both commercial and organized group: Greates	t of \$100/year or \$5/participant/day or 3% of gross revenue
Assigned Sites (commercial only): I None No. of Assigned Sites sul	bject to fees
Special Area Fees Apply:	
Minimum insurance coverage requirements Moderate Risk: \$500,000 p	per occurrence, \$1,000,000 annual aggregate
Permit is valid only if a current Certificate of Insurance, listing the United	States as additional insured, is on file with the issuing BLM Office.
Post use report due date(s) 10/11/2016	Sond Requirement:  None Bond Amount
Purpose and activities authorized Unmanned aircraft operator training and mission exercise.	
Approved Area of Operation	
Three Peaks Model Port and mapping of Three Peaks surrounding	area.
	operations plan on file with BLM. I acknowledge I am required to comply meral Terms listed on page two of this form and any additional stipulations
Additional Stipulations are attached: Yes No	
Sean 3- Fein	02 OCT 2015
(Permittee Signature)	(Date)
Approved and issued for the conduct of permitted activities and locations subject to General Terms and any additional stipulations attached.	hown on this permit and in conformance with the operating plan. Permit is
Elizabeth R Durchard Clipale (BLM Authorized Officer Rinted Name) (BLM A	uthorized Officer Signature) 10/5/15 (Date)

#### **GENERAL TERMS**

- a. The permittee shall comply with all Federal, State, and local laws; ordinances; regulations; orders; postings; or written requirements applicable to the area or operations covered by the Special Recreation Permit (SRP or permit). The permittee shall ensure that all persons operating under the authorization have obtained all required Federal, State, and local licenses or registrations. The permittee shall make every reasonable effort to ensure compliance with these requirements by all agents of the permittee and by all clients, customers, participants, and spectators.
- b. An SRP authorizes special uses of the public lands and related waters and, should circumstances warrant, the permit may be modified by the BLM at any time, including modification of the amount of use. The authorized officer may suspend or terminate an SRP if necessary to protect public resources, health, safety, the environment, or because of non-compliance with permit stipulations. Actions by the BLM to suspend or terminate an SRP are appealable.
- c. No value shall be assigned to or claimed for the permit, or for the occupancy or use of Federal lands or related waters granted thereupon. The permit privileges are not to be considered property on which the permittee shall be entitled to earn or receive any return, income, price, or compensation. The use of a permit as collateral is not recognized by the BLM.
- d. Unless expressly stated, the permit does not create an exclusive right of use of an area by the permittee. The permittee shall not interfere with other valid uses of the federal land by other users. The United States reserves the right to use any part of the area for any purpose.
- e. The permittee or permittee's representative may not assign, contract, or sublease any portion of the permit authorization or interest therein, directly or indirectly, voluntarily or involuntarily. However, contracting of equipment or services may be approved by the authorized officer in advance, if necessary to supplement a permittee's operations. Such contracting should not constitute more than half the required equipment or services for any one trip or activity and the permittee must retain operational control of the permitted activity. If equipment or services are contracted, the permittee shall continue to be responsible for compliance with all stipulations and conditions of the permit.
- f. All advertising and representations made to the public and the authorized officer must be accurate. Although the addresses and telephone numbers of the BLM may be included in advertising materials, official agency symbols may not be used. The permittee shall not use advertising that attempts to portray or represent the activities as being conducted by the BLM. The permittee may not portray or represent the permit fee as a special federal user's tax. The permittee must furnish the authorized officer with any current brochure and price list if requested by the authorized officer.
- g. The permittee assumes responsibility for inspecting the permitted area for any existing or new hazardous conditions, e.g., trail and route conditions, landslides, avalanches, rocks, changing water or weather conditions, falling limbs or trees, submerged objects, hazardous flora/fauna, abandoned mines, or other hazards that present risks for which the permittee assumes responsibility.
- h. In the event of default on any mortgage or other indebtedness, such as bankruptcy, creditors shall not succeed to the operating rights or privileges of the permittee's SRP.
- i. The permittee cannot, unless specifically authorized, erect, construct, or place any building, structure, or other fixture on public lands. Upon leaving, the lands must be restored as nearly as possible to pre-existing conditions.
- j. The permittee must present or display a copy of the SRP to an authorized officer's representative, or law enforcement personnel upon request. If required, the permittee must display a copy of the permit or other identification tag on equipment used during the period of authorized use.
- k. The authorized officer, or other duly authorized representative of the BLM, may examine any of the records or other documents related to the permit, the permittee or the permittee's operator, employee, or agent for up to three years after expiration of the permit.
- 1. The permittee must submit a post-use report to the authorized officer according to the due dates shown on the permit. If the post-use report is not received by the established deadline, the permit will be suspended and/or late fees assessed.
- m. The permittee shall notify the authorized officer of any incident that occurs while involved in activities authorized by these permits, which result in death, personal injury requiring hospitalization or emergency evacuation, or in property damage greater than \$2,500 (lesser amounts if established by State law). Reports should be submitted within 24 hours.



## **United States Department of the Interior**

BUREAU OF LAND MANAGEMENT Color Country District Office 176 East D.L. Sargent Drive Cedar City, Utah 84721

> (435)865-3000 http://www.blm.gov



Date: September 23, 2015

In Reply Refer To: 2931 UTU-38905 (UTC010)

RETURN RECEIPT REQUESTED
CERTIFIED MAIL NO: 7013 1710 0000 8705 1940

<u>DECISION</u> Southern Utah University, SRP Issued

Southern Utah University Sean Heiner 351 West University Blvd., BU 303D Cedar City, UT 84720

Re: Issuance of a Special Recreation Permit for Southern Utah University (UT-040-11-12)

Dear Mr. Heiner:

Enclosed is a copy Special Recreation Permit issued to Southern Utah University, in your care, which has been approved by the Bureau of Land Management (BLM). The initial application fee has been paid, and will be off-set against use fees for the term of the permit.

The issuance of this permit constitutes a final decision by the Bureau of Land Management in this matter.

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4, and the enclosed Form 1842-1. If an appeal is taken, your notice of appeal must be filed in this office (at the above address) within 30 days from receipt of this decision. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition pursuant to regulation 43 CFR 4.21 (58 FR 4939, January 19, 1993) or 43 CFR 2932.8 for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the notice of appeal and petition for a stay **must** also be submitted to each party named in this decision, to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

#### Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied;
- (2) The likelihood of the appellant's success on the merits;
- (3) The likelihood of immediate and irreparable harm if the stay is not granted; and
- (4) Whether the public interest favors granting the stay.

If you have any questions, please contact Elizabeth Burghard, Field Office Manager, Cedar City Field Office, at the above address or call (435) 865-3006.

Sincerely,

Elizabeth Burghard Field Office Manager

Elipber Roughard

Enclosure:

1 - SRP

# **United States Department of the Interior Bureau of Land Management**

Categorical Exclusion Not Established By Statute . DOI-BLM-UT-C010-2015-0063

September 2015

# Southern Utah University Special Recreation Permit 2015

Location: Iron County, Utah

Applicant/Address: Sean Heiner, 351 West University Blvd., BU 303D

Cedar City, Utah 84720

Cedar City Field Office 176 E. DL Sargent Dr. Cedar City, UT 84720 435-865-3000



# CATEGORICAL EXCLUSION DOCUMENTATION FORMAT WHEN USING CATEGORICAL EXCLUSIONS NOT ESTABLISHED BY STATUTE

#### A. Background

BLM Office: <u>LLUTC0100</u>, <u>Cedar City Field Office</u> Lease/Serial/Case File No: . DOI-BLM-UT-C010-2015-0063

Proposed Action Title/Type: Issuance of Special Recreation Permit to Southern Utah University

Location of Proposed Action: <u>Iron County</u>, <u>UT</u> (Three Peaks Model Port)

Description of Proposed Action: Southern Utah University has applied for a one year Special Recreation Permit to use the Three Peaks Model Port for unmanned aircraft operator training and mission exercises. The first event would be October 12, 2015 to October 14, 2015 and will follow by other events though out the year. The training course will include minimum impact filming and mapping of the greater Three Peaks area.

#### **B.** Land Use Plan Conformance

The proposed action is subject to the Cedar Beaver Garfield Antimony Resource Management Plan (RMP), approved in 1986, as amended. The RMP was amended in February 2006 to create the Greater Three Peaks Special Recreation Management Area and incorporate the associated Recreation Management Plan. This plan states that competitive and organized events would be considered through the special recreation permit process.

#### C. Compliance with NEPA

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with 516 DM 2, Appendix 1, H (1): "Issuance of Special Recreation Permits for day use or overnight use up to 14 consecutive nights; that impacts no more than 3 staging area acres; and/or for recreational travel along roads, trails, or in areas authorized in a land use plan. This CX cannot be used for commercial boating permits along Wild and Scenic rivers. This CX cannot be used for the establishment or issuance of Special Recreation Permits for "Special Area" management (43 CFR 2932.5)."

This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The proposed action has been reviewed, and none of the extraordinary circumstances described in 43 CFR Part 46.215 apply.

D: Signature	1001		
Authorizing Official: _	Elizabeth R Burahard	Date: 9/29/15	
	Elizabeth R. Burghard		
	Cedar City Field Manager		

**Contact Person** 

## Categorical Exclusion Review Record

Resource	Extraordinary Circumstances apply? Yes/No*	Assigned Specialist Signature	Date
Air Quality	No	Jeff Reese	09/14/15
Areas of Critical Environmental Concern	No	Leisel Whitmore	09/08/15
Cultural Resources	No	Jamie Palmer	9/8/2015
Environmental Justice	No	Leisel Whitmore	09/08/15
Farm Lands (prime or unique)	No	Jeff Reese	09/14/15
Floodplains	No	Jeff Reese	09/14/15
Invasive Species/Noxious Weeds	No	Jeff Reese	09/14/15
Migratory Birds	No	Sheri Whitfield	09/09/15
Native American Religious Concerns	No	Jamie Palmer	9/8/2015
Threatened, Endangered, or Candidate Species	No	Sheri Whitfield	09/09/15
Wastes (hazardous or solid)	No	Glenn Pepper	9/16/15
Water Quality (drinking or ground)	No	Jeff Reese	09/14/15
Wetlands / Riparian Zones	No	Adam Stephens	09/14/15
Wild and Scenic Rivers	No	Leisel Whitmore	09/08/15
Wilderness	No	Leisel Whitmore	09/08/15
Lands and Realty	No	Michelle Campeau	09/17/15

<sup>\*</sup>Extraordinary Circumstances apply.

Environmental Coordinator\_

Date: 9/23/15

Each item of the review record should be completed by the assigned resource specialist. The Team Leader, NEPA Coordinator or authorized officer may sign the review record when they are acting as a specialist. By Utah Policy this checklist must be prepared for each CX and attached to the CX documentation form.

For additional information concerning this CX review, contact Dave Jacobson Cedar City Field Office, 176 E. DL Sargent Dr., Cedar City, UT, 84720, 435-865-3010

**Note:** A separate decision document must be prepared for the action covered by the CX. Include appropriate protest or appeal provision language.

## **Exceptions to Categorical Exclusion Documentation**

The action has been reviewed to determine if any of the extraordinary circumstances (43 CFR 46.215) apply. The project would:

		Extraordinary Circumstances
1. H	ave s	ignificant impacts on public health or safety.
Yes	No X	<b>Rationale:</b> The proposed activity is of low risk and would take place in a developed site with a restroom.
histo river: wetla	ric or s; nat ands (	ignificant impacts on such natural resources and unique geographic characteristics as cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic ional natural landmarks; sole or principal drinking water aquifers; prime farmlands; Executive Order 11990); floodplains (Executive Order 11988); national monuments; birds; and other ecologically significant or critical areas.
Yes	No X	Rationale: No historic or cultural resources would be affected. There are no park or refuge lands, scenic rivers, national natural landmarks, prime farmlands, or national monuments in the affected area. No wetlands would be deteriorated nor floodplain use impacted. The area aquifer would not be affected. This permit would not be valid within Wilderness or Wilderness Study Areas and therefore they would not be affected.
		ighly controversial environmental effects or involve unresolved conflicts concerning uses of available resources [NEPA section 102 (2) (E)].
Yes	No X	Rationale: The proposal would only have negligible impacts on any resources; no conflicts between alternative resource uses are anticipated. Similar projects implemented in the past have not resulted in resource conflicts or controversial impacts.
		ighly uncertain and potentially significant environmental effects or involve unique or environmental risks.
Yes	No X	<b>Rationale:</b> The environmental impacts would be negligible. No unique unknown environmental risks are anticipated. The impacts are predictable based on previous similar projects.
		sh a precedent for future action or represent a decision in principal about future actions atially significant environmental effects.
Yes	No X	<b>Rationale:</b> The proposal is not controversial or precedent setting. No future actions which might result in significant impacts to the environment are known at this time.
	ave a	direct relationship to other actions with individually insignificant but cumulatively environmental effects.

		Extraordinary Circumstances
Yes	No X	<b>Rationale:</b> The impacts from the proposal are expected to be negligible and would not contribute to potentially cumulative significant impacts now or in the reasonably foreseeable future.
		ignificant impacts on properties listed, or eligible for listing, on the National Register Places as determined by the bureau.
Yes	No X	Rationale: Issuing this permit does not create any new surface disturbing activities or introduce activities that would adversely impact National Register eligible sites or places. No impacts would occur to historic properties.
	ıreate	ignificant impacts on species listed, or proposed to be listed, on the List of Endangered med Species, or have significant impacts on designated Critical Habitat for these
Yes	No X	Rationale: None of these species or their habitat occurs in the project area; or if present, they would not be affected by the proposal. Any required consultation, conformance, or concurrence from the U.S. Fish and Wildlife Service has been received.
		a Federal law, or a State, local or tribal law or requirement imposed for the protection ironment.
Yes	No X	Rationale: The proposal would be in conformance with all known environmental laws or requirements. This includes the Migratory Bird Treaty Act, Fish and Wildlife Coordination Act, county ordinances, and state statutes.
		a disproportionately high and adverse effect on low income or minority populations e Order 12898).
Yes	No X	<b>Rationale:</b> This project would not have an adverse affect on low income or minority populations.
pract	itione	access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious ers or significantly adversely affect the physical integrity of such sacred sites e Order 13007).
Yes	No X	Rationale: This action would not adversely affect the physical integrity of any known sacred sites.
invas grow	sive s <sub>j</sub> th, or	bute to the introduction, continued existence, or spread of noxious weeds or non-native pecies known to occur in the area or actions that may promote the introduction, expansion of the range of such species (Federal Noxious Weed Control Act and Order 13112).

	4	Extraordinary Circumstances
Yes	No X	Rationale: The proposal is not expected to cause these species to spread into the affected area. Appropriate stipulations are included in the authorization.

\*

8						*	
×							
					a		
	e						

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

# COMMERCIAL SPECIAL RECREATION PERMIT STIPULATIONS

#### **Special Recreation Permit Details**

Name of Company: Southern Utah University

Special Recreation Permit Number: DOI-BLM-UT-C010-2015-0063

Pre-trip Itineraries Required? Yes

Deductions or Discounts Applicable: None

In addition to the General Terms listed on page two of Form 2930-2, this permit is subject to the following additional stipulations:

#### **BLM Utah Terms and Stipulations**

#### A. General

- (1) Permits issued for more than one year are subject to annual validation. To secure validation the permit holder must:
  - (a) have performed satisfactorily under the terms and conditions of this permit and be in conformance with applicable Federal, State, and local laws, ordinances, regulations, orders, postings, and written requirements applicable to the area and operation covered by the permit,
  - (b) ensure that all persons operating under the permit have obtained all required Federal, State, and local licenses or registrations,
  - (c) have on file, with the office issuing the permit, current insurance that meets or exceeds the BLM's minimum insurance requirements for the event or activity and identifies the United States Department of the Interior Bureau of Land Management as additional insured, and
  - (d) have no outstanding, past due, or unpaid billing notices.
- (2) Permittees may not leave unattended personal property on public lands administered by the Bureau of Land Management for a period of more than 48 hours without written permission of the authorized officer, with the exception that vehicles may be parked in designated parking areas for up to 14 consecutive days. Unattended personal property is subject to disposition under the Federal Property and Administrative Services Act of 1949 as amended.-
- (3) The permit only authorizes the use for the activity, the time(s) and in the area(s) specifically described in the approved area(s) of operation section of this permit (page one of Form 2930-2) or on the list of authorized routes or maps attached to the SRP.
- (4) The permittee must maintain on file with the BLM a current and correct list of employees who will be conducting services for the company on public land. Persons providing services under this permit must be an employee of the permittee.

- (5) Placement of caches of supplies and food or equipment for future activities is not allowed without written permission of the authorized officer.
- (6) The permittee and any persons providing services under this permit must present or display a copy of the Special Recreation Permit (Form 2930-2) to an authorized officers-representative, or law enforcement personnel upon request to determine the validity of the permit, ascertain if the group has a copy of the permit and are operating within authorization (locations and activities), check all required equipment, and to orient trip participants about the use of public lands and safety.
- (7) The permittee shall post a copy of the Special Recreation Permit (Form 2930-2) and these special stipulations in prominent view where all participants and public may view them (e.g., at the start of an event, staging area, in a commercial outfitters office or on their website, etc.).
- (8) If the permittee wishes to sell or otherwise terminate his or her business and desires that permit privileges be transferred to a new owner, the permittee shall notify the authorized officer in advance, in writing, and receive advance written approval for the permit transfer. Additionally, the permittee shall advise the authorized officer in advance of any action that would result in a change in ownership or controlling business interest.
- (9) When a non-permitted company/group (e.g., booking agent, advertiser) is working with a commercially permitted company to provide a service on public lands, the advertising must reflect this partnership. For example, Company Y is not permitted but they work with Company X who is permitted. Company Y must include 'working in conjunction with Company X, a commercially permitted outfitter on all advertisements.

#### B. Financial

- (1) All fees associated with commercial use are established by the BLM Director, updated every three years based on the Implicit Price Deflator Index, and published in the Federal Register. Commercial use fees are based on a percentage (3% as of March, 2014) of the adjusted gross revenue derived from use authorized under the Special Recreation Permit. The permittee will pay at least the minimum annual fee (\$105.00 as of March, 2014), plus any commercial use fees due in excess of the minimum fee. Additionally, if more than 50 hours of BLM staff time is required for processing the permit, cost recovery of direct expenses related to the permit will be charged. If the 50-hour cost recovery threshold is anticipated to be exceeded, then recovery of costs begins with the first hour.
- (2) When Special Area fees are applicable, commercial operators must collect the fees from their guests, spectators, or participants, and list the Special Area fee as a separate item assessed by BLM on trip invoices. At the end of each use season, the permittee must include a trip by trip accounting of the number of guests using the Special Areas in their year-end post use report.
- (3) A minimum annual fee or prepayment of estimated use fees is due prior to use occurring. This amount is based on either the amount of fees paid the previous year or an annual revenue estimate agreed to by both the permittee and the authorized officer. For commercial use, periodic payments are allowed if the prepayment amount due exceeds \$1,000.00. At least 25% of the total amount due must be paid prior to use.

- (4) The permittee must submit a post use report (see Appendix A) thirty days after the last use of the permit in a calendar year, or as agreed upon with the field office administering the permit. Alternative reporting arrangements may be established by written agreement with the authorized officer. An extension of this due date may be approved by the issuing office on a case-by-case basis. The report must contain a trip-by-trip log of: trip location, beginning and ending dates of each trip, number of clients, number of guides, and gross receipts for the trip. In reporting gross receipts, the outfitter will report all payments made by the customer including, but not limited to, activity-related equipment rental, gratuities, donations, and gifts, with the only exceptions being state and local sales tax and retail sales of durable goods that remain the property of the customer and have utility after the activity. The request for deductions based on pre- and post-trip transportation and lodging expenses and percentage of time on public land, if being claimed, must also be submitted at this time. Requests for transportation and lodging deductions must be accompanied by copies of supporting receipts documenting proof of payment.
- (5) The permittee must submit a post use report to the authorized officer for every year the permit is in effect. If the post use report is not received by the established deadline, the following late fee schedule, set by the Utah BLM Director, will be initiated:
  - More than 15 calendar days but less than 30 calendar days after the due date: \$125
  - More than 30 calendar days after the due date, but less than 45 calendar days: \$250

Post use reports submitted more than 45 calendar days after the due date may result in criminal, civil, and/or administrative action to protect the interest of the United States.

- (6) The permittee must maintain the following internal accounting records pertaining to the permit for a minimum of three years after the expiration of the permit:
  - (a) W-2 records or a similar record of employment for all employees conducting activities under the permit,
  - (b) a record of all financial relationships with booking agents or advertisers,
  - (c) a record of all receipts or compensation including payments, gratuities, donations, gifts, bartering, etc., received from any source during activites conducted under the permit, and
  - (d) a record of all payments made by the permittee and claimed as a deduction in the permittee's fee submission.
  - (e) a complete and reconcilable accounting system that includes the following items:
    - 1) customer cash receipt deposit ledger or statements. These include the deposit transactions with continuous sum totals.
    - (2) bank statements/ledgers, or the deposit slip ledger receipts

#### C. Insurance

(1) Self-insured, Federal, and State Government agencies are not required to list the United States Department of the Interior – Bureau of Land Management as an additional insured. In lieu of insurance, a written statement is required from the comptroller or risk manager that the SRP activity is in fact agency sponsored and the agency accepts liability. If a state or state subdivision, or quasi-governmental agency is not self-insured, all insurance requirements apply.

(2) At a minimum, the permittee shall have in force a property damage, personal injury, and comprehensive public liability insurance policy that meets or exceeds the BLM's minimum insurance requirements for the event or activity.

#### General Guidelines for Minimum Insurance Requirements

SRP Event or Activity	Per Occurrence	Per Annual Aggregate
Low Risk: general non-competitive and non-commercial activities such as group camping, group activities, mounted orienteering, backpacking, or dog trials.	\$300,000	\$600,000
Moderate Risk: whitewater boating, horse endurance rides, OHV events, mountain bike races, rock climbing (with ropes), ultra-light outings, rodeos	\$500,000	\$1,000,000
High Risk: bungee jumping, speed record events, unaided rock climbing, aerial or aerial delivery	\$1,000,000	\$2,000,000 - \$10,000,000

- (3) The policy shall state that the insurance company shall have no right of subrogation against the United States of America.
- (4) Such insurance must name the United States Department of the Interior Bureau of Land Management as an additional insured and provide for specific coverage of the permittee's contractually assumed obligation to indemnify the United States.
- (5) The permit is not valid unless the permittee maintains a current authenticated certificate of the required insurance on file with the office issuing the permit. The insurance need only be valid during periods of actual use (which may include a set-up and break-down period).
- (6) The permittee shall indemnify and hold harmless the United States against any responsibility or liability for damage, death, injury, or loss to persons and property which may occur during the permitted use period or as a result of such use.
- (7) The name of the insured on the insurance policy must be the same as the name on the permit. Those permittees holding insurance policies which only insure the permittee and not the permittee's employees must ensure that their employees also have the required insurance in effect, and that a certificate of insurance is furnished to the authorized officer.

#### D. Marking of Outfitter Vehicles

Every street-legal motor vehicle used to transport clients or equipment shall be marked with at least one sign, decal, or placard on each side of the vehicle. The sign shall at a minimum include the company name and must be readable from a distance of 50 feet.

#### E. Pre-Trip Itinerary

The permittee will file a notice of intent in writing with the BLM prior to each trip. The notice of intent must specify the intended dates of the trip, number of participants, number of leaders and name of the main leader. Once times and dates are approved, the permittee will post times and dates on the kiosk at Three Peaks Model Port two weeks prior to the event.

Camping will not be permitted at the Three Peaks Model Port.

#### F. Environmental and Resource Protection

All activities must conform to Leave No Trace principles.

- (1) For all activities and at all base camps with locations served/supported by a motorized vehicle, the permittee must have a toilet system that allows for the proper carry-out and disposal of solid human body waste in a responsible and lawful manner that is adequate for the size of the group and length of the trip. Toilets must be accessible for use by passengers and crew at all sites where a company motorized vehicle is present, except in developed locations where public restrooms are provided. In locations remote from a permittee's vehicle, solid human waste must be cat holed in a sunny location in bare soil or carried out (unless otherwise stipulated). Toilet paper must be carried out and not buried or burned.
- (2) Cans, rubbish, and other trash shall not be discarded, buried, or dumped on public lands or related waters. Wet garbage such as egg shells, orange peels, leftover solid food, bones, melon rinds, etc., must be carried out. Trash cleanup at campsites and day use areas will include all litter or discarded items including small items such as bottle caps, cigarette butts and microtrash.
- (3) Washing or bathing with soap is not permitted in tributary streams, springs or other natural water sources. Dishwater must be strained prior to dispersal (scattering). Dishwater and bathwater may not be dispersed within 100 feet of streams, springs, or other natural water sources.
- (4) The permittee will be responsible to ensure that historical, archaeological, cultural, or ecological values are not damaged, destroyed, or removed by any participants during authorized activities.
- (5) The permittee must conduct operations authorized by the permit in accordance with applicable BLM management plans and the permittee's own operating plan submitted to the BLM in support of this permit.
- (6) The number of participants on any trip, including guides, may not exceed the number specified in the permittee's operating plan and approved permit. The exception to this requirement is over-the-road bus tours using state and Federal highway and class B county roads.
- (7) No camping is permitted within 300 feet of a known prehistoric or historic site.
- (8) No camping is permitted within 330 feet of a water source other than perennial streams unless prior written permission is received from the authorizing officer.

#### G. Fires

- (1) No Fire will be permitted at the Three Peaks Model Port.
- (2) During a wild fire operations of any and all air crafts of any kind will stop immediately and will remain so until notice form the BLM officials.

#### H. Informed Risk

- (1) The permittee shall inform clients of the inherent risks involved with the activity.
- (2) The permittee shall review potential safety concerns, contingency plans and potential consequences with its clients prior to operations.
- (3) The permittee shall utilize the appropriate and proper equipment and gear for the activity.
- (4) The permittee shall ensure that all persons operating under the authorization are made aware of the physical safety hazards associated with abandoned mine openings and the potential for encountering abandoned mines within the permitted area. The permittee must present or display a copy of the attached *Utah Abandoned Mine Safety: Stay Out and Stay Alive!* brochure in prominent view where all participants and public may view it. To obtain additional copies of the brochure, contact your local BLM office.

#### I. Safety and Equipment

- (1) The permittee will ensure that activities are conducted in compliance with all laws and regulations relating to vehicle operations, land use restrictions, food handling, and any other applicable regulations.
- (2) Every person serving as a guide on public land must at a minimum be trained and currently certified in Basic First Aid and Cardio-pulmonary Resuscitation (CPR). Each guide must have legible copies of certification cards in his/her possession while operating under a BLM Special Recreation Permit in Utah. In addition, certification cards must be filed at the permittee's headquarters and available for BLM review if requested.
- (3) The following equipment must be carried on all commercial trips:
  - (a) A first aid kit adequate to accommodate each activity, group, or subgroup will be carried on all trips.
  - (b) Adequate repair kits and spare supplies appropriate for the trip and activity.
- (4) The following procedures must be followed during all commercial activities:
  - (a) Unless specifically authorized in the permit, discharge of firearms is allowed only for legal pursuit of game animals by a licensed hunter.
  - (b) Use of explosives and fireworks is prohibited.

## SUPPLEMENTAL STIPULATIONS FOR USE OF THE THREE PEAKS MODEL PORT

- (1) The FAA and AMA Rule and Regulation must be followed at all times.
- (2) The permittee will provide an updated copy of their Certificate of Authorization (COA) from the Federal Aviation Administration (FAA). This will also need to be approved by the Office of Aviation Services (OAS)
- (3) The permittee is only allowed take off and land at the Three Peaks Model Port.

## **BLM use of Unmanned Aerial Systems (UAS)**

- (1) Please refer to FA IB-2015-014, OAS OPM-11, and the National Aviation Plan
- (2) Highlights of the policy:
  - (a) BLM employees are not authorized to utilize personally owned UAS for any Bureau work.
  - (b) All UAS are considered to be "aircraft" by the Federal Aviation Administration (FAA) and DOI.
  - (c) All UAS aircraft and pilots used for Bureau benefit must be approved by the Office of Aviation Services (OAS).
  - (d) All UAS flights must be done under an FAA Certificate of Authorization (COA) or through the existing Memorandum of Agreement between DOI and FAA.
  - (e) See the BLM National Aviation Plan Sections 3.16 and 5.29 for UAS mission planning procedures. The Redbook Chapter 16 also some supplemental guidance.
  - (f) Procurement of flight services and aircraft (UAS) must follow the requirements of 353 DM 1 and 2. Buying a small UAS with a government credit card or other micro-purchase authority is not authorized.
  - (g) Any Cooperator the Agency uses to conduct Agency missions such as a University or other State Agency must be approved by OAS and issued a Cooperator Letter of Approval.
  - (h) Any UAS operation undertaken by another entity for remote sensing or other needs that utilize BLM land for takeoff and landing must follow BLM land use permitting procedures and must be flown under an FAA COA. The COA must be reviewed by NAO and OAS prior to any permit being issued.
  - (i) It is essential that the SAM and UAM's are consulted for any UAS project undertaken.

#### **Filming**

(1) Minimum impact filming will be allowed for Three Peaks Recreation Area. (See Attachment 1)

- (2) The camera operator will not use models, sets, or props that are not a part of a site's natural or cultural resources, or administrative facilities, as defined in H-2930-1 on page G-6 through G-9)
- (3) Filming will take place at a location where or a time when members of the public are generally allowed.
- (4) Construction or removal of vegetation for the creation of a camera platform or to clear a shot is not allowed. Filming is done using only ambient light sources may be used.
- (5) The use of dollies, tracks, cranes, high lines and other camera support devices is not allowed. However handheld and tripod mounted cameras are allowed.

(Signed/Permittee)

I hereby agree to abide by the above stipulations in my company's commercial operations on public land. petroleum-based or synthetic organic compounds.

Date: 02 OCT 2015

Appendix A - Post Season Use Report

OUTFITTER BUSINESS NAME:

Pre/post trip transportation deductions \$						
Pre/post trip lodging deductions \$						
Percentage of time spent on public lands						
Gross Receipts \$						
Area or routes used						
# of Guides	å:					
# of Guests						
Trip End Date mm/dd/yr						
Trip Start Date mm/dd/yr						

1. Gross receipts includes all payments made by the customer including, but not limited to, trip-related equipment rental, gratuities, donations, and gifts, with the only exceptions being state and local sales tax and retail sales of durable goods that remain the property of the customer and have utility after the trip.

2. Pre/post trip lodging deductions must be supported by copies of receipts.

	J.
	≣
	Ε
	Φ
Ĺ	1
	Φ
	<u>s</u>
•	_
	듯
:	≌
	Ö
	ഇ
	ပ္က
(	₩
	÷
Ī	ā
•	ਨੁ
	ዾ
(	7
•	<u>``</u>
	É
	Ξ
3	늘
	₹
	_
	ᅙ
•	☴
	ĭ
	⊇
	፸
	ö
	$\stackrel{\smile}{\sim}$
	⊆
-	Ö
	ള
•	ರ
	₫
	g
	ﻕ
	ပ
	activities
	≌.
:	₹
;	≨
	ဗ္ဗ
	··
-	
	g
	g
	g
	g
	mmercial
	g
	commercial
	all commercial
•	commercial
	all commercial
	ig ot all commercial
:	iting of all commercial
	ig ot all commercial
	accounting of all commercial
	accounting of all commercial
	plete accounting of all commercial
	plete accounting of all commercial
	omplete accounting of all commercial
	complete accounting of all commercial
	complete accounting of all commercial
	complete accounting of all commercial
	and complete accounting of all commercial
	ct and complete accounting of all commercial
	ect and complete accounting of all commercial
	ect and complete accounting of all commercial
	irrect and complete accounting of all commercial
	, correct and complete accounting of all commercial
	ue, correct and complete accounting of all commercial
	true, correct and complete accounting of all commercial
	true, correct and complete accounting of all commercial
	t is true, correct and complete accounting of all commercial
	rt is true, correct and complete accounting of all commercial
	ort is true, correct and complete accounting of all commercial
	eport is true, correct and complete accounting of all commercial
	e report is true, correct and complete accounting of all commercial
	e report is true, correct and complete accounting of all commercial
	e report is true, correct and complete accounting of all commercial
	ve report is true, correct and complete accounting of all commercial
	e above report is true, correct and complete accounting of all commercial
	e above report is true, correct and complete accounting of all commercial
	e above report is true, correct and complete accounting of all commercial
	y the above report is true, correct and complete accounting of all commercial
	tify the above report is true, correct and complete accounting of all commercial
	y the above report is true, correct and complete accounting of all commercial

Representative
Authorized
ō
Permittee
Signature,

#### Attachment 1

## MINIMUM IMPACT FILMING CHECKLIST

Applicant: Southern Utah University		
Project: A simulated forensic mission including	maping	of the area
Type of Filming: Movie X Still Video/DVD		

I. This section applies to all BLM-managed lands.	YES*	NO
A. Will impact sensitive habitat or species		×
B. Will impact Native American sacred site		×
C. Involves major use of pyrotechnics		×
D. Involves more than minimum impacts to land, air, or water		
E. Involves use of explosives		×
F. Involves use of exotic species with danger of introduction into the area		×
G. Involves use of heavy equipment		×
H. Involves aircraft (helicopter, fixed-wing, or hot air balloon) and was determined to <b>not be</b> minimally impacting in part II.		×
I. Involves surface disturbance or adverse impact to sensitive surface resource values or does not meet standards mandated by law, regulation or policy for resources including, but not limited to:		×
1. Historical, cultural or paleontological sites		×
2. Sensitive soils		
3. Relict environments		X
4. Wetlands or riparian areas		X
5. Wild & Scenic River corridors		X
6. National Register Sites		×
7. Designated wilderness or WSAs		X

<sup>\*</sup> If "yes" was marked in any one category, the action is not minimally-impacting.

II. Aircraft Screening	YES*	NO
1. Use of aircraft (helicopter, fixed wing, hot air balloon) involves refueling in a sensitive area		X'
<ol> <li>Use of aircraft is proposed in an area with wildlife concerns during a critical period and</li> <li>a) is proposed for more than 1 day or</li> </ol>		X
b) exceeds the frequency of 2 projects per 30-day period		×
<ol> <li>Use of aircraft is proposed in an area with no wildlife concerns and</li> <li>a) is proposed for more than 2 days or</li> </ol>	1	X
b) exceeds the frequency of 3 projects per 30-day period		×
<ol> <li>Use of aircraft is proposed within ½ mile of a designated campground located in a sensitive area and the number of low-elevation passes proposed exceeds 4 passes per day.</li> </ol>		×

<sup>\*</sup> If "yes" was marked in any one category, the action is not minimally-impacting.

# SPECIAL RECREATION PERMIT GUIDING & OUTFITTING OPERATING PLAN

The operating plan must accurately identify the use and activities, the use area, and the use seasons of the operations proposed on public land. Make sure the information is complete and that all proposed services, facilities, and dates of use are described. Failure to respond to any of the items, or inaccurate disclosures may result in delays in processing or rejection of the application. This outline is provided for convenience only; other formats are acceptable. Additional pages may be attached as necessary.

#### I. Company Information

- A. Company Name: Southern Utah University
- B. Address: 351 West University Blvd. Cedar City, Utah 84720

C. Type of Company: \_\_ Sole proprietorship \_\_ Partnership

\_\_ Corporation \_X\_ Government Agency

(Attach copies of Articles of Incorporation, Corporate Certificate from the Utah Secretary of State, and any other business license issued by the State of Utah or its political subdivisions.

- D. Date Company Established: 1897
- E. Number of Years with Current Owner(s): 118
- F. Name of Owner(s)/Partners: State of Utah
- G. Telephone Number: (435) 865-8067, Emergency Telephone Number: (435) 770-0940, Fax Number: (435) 586-5493, E-Mail Address: seanheiner@suu.edu, Web Site:

http://suu.edu/business/aviation/

H. Name of individual(s) authorized to conduct business with BLM concerning this permit: Sean Heiner

#### II. Purpose and Need for the Permit

A. Describe and demonstrate the need for the service or activity to be offered:

A permit is requested to conduct flight training for operators of unmanned aircraft systems (UAS) and to conduct UAS training missions. Participants will be students from the aviation programs at Southern Utah University.

B. Describe how the activity enhances the opportunity for visitors to enjoy public lands and their recreational experience:

Visitors already enjoy using the Three Peaks Model Port for R/C operations but increasing awareness of this resource may encourage additional interest and additional activity. The Three Peaks Recreation Area is a unique facility that offers unique recreational opportunities. The proposed unmanned aircraft operations will increase the variety of unique recreational activities the area supports. Other visitors to the Three Peaks Recreation Area will find the UAS operations intriguing and will pause their activities to enjoy the new experience in a familiar place.

C. Describe how the service or activity helps meet BLM management objectives:

This activity will provide additional opportunities for individuals to enjoy outdoor recreation.

D. Describe how the proposed use area is suitable for and not in excess of the size needed to accomplish the purpose:

The Three Peaks Model Port is nicely designed and perfectly suited for UAS training operations. The operations will only be conducted on and in close proximity to the model port. The vehicles will always remain within line-of-sight of the student operators. These activities will not infringe on space intended for other common activities in the area.

#### III. Conduct of Your Service or Activity

A. Activity Parameters

- 1. Maximum and Minimum Group Size: (Max.) 25 (Min.) 2
- 2. Number of Staff and Staff to Customer Ratio: 3 staff, 1:8 ratio
- 3. Trip length and/or dates of activity: October 12, 13, & 14
- 4. Activities to be engaged in, including the equipment, vehicles or livestock to be used, and services offered:

Activities: UAS flight training & UAS mission training

Equipment: Various unmanned aircraft systems and supporting equipment

Services: UAS training for certain Southern Utah University students and classes

5. Methods and means of transportation, including the numbers and types of vehicles,

including street legal vehicles, ATV's, boats, aircraft, and livestock:

Participants will carpool or use their own street legal vehicles to access the Three Peaks Model Port. A number of unmanned aircraft will be available for training activities.

6. Describe any vending, rentals, or sales of consumer products or services: N/A

Page 3 of 6

B. Operations Area

1. Provide a map at a scale of 1:100,000 of the public land operations area. Additional, more detailed maps may be required.

A map of the model port was not found.

- 2. Include on the map all staging areas, camping locations, attraction sites, and routes of travel. Staging areas will be no different than those already located at the Three Peaks Model Port. Camping will not be necessary. The routes of travel will be the standard routes already available to access the site.
- C. Environmental Protection and Conservation of Natural Resources
- 1. How will your operations comply with the environmental protection stipulations of the permit? The proposed operations will not create any undue harm to the environment and do not pose significant environmental hazards. UAS batteries will be appropriately managed.
- 2. How will your operations incorporate *Leave No Trace* and/or *Tread Lightly* principles? Training activities and missions will only be executed on surface areas designated for remote control vehicle operations. Participants will remain on designated surfaces. All garbage will be properly discarded or taken away with participants when they leave. The area will be scanned for any out-of-place items before the groups depart.
- D. Health, Safety and Sanitation
- 1. Describe the first aid (including universal precautions) and evacuation equipment that will be present during your operations:

Evacuation equipment will be the cars that participants drive to the model port. Cell phones will be available to call in evacuation support if necessary. Basic first aid kits will be available in automobiles driven to the model port. An ambulance will be called for any first aid needs beyond the basics.

- 2. What emergency communications will be available? Participants will have access to mobile phones for emergency communications. Cell phone coverage is adequate at the Three Peaks Model Port.
- 3. What is your emergency evacuation plan?

The emergency evacuation plan is to load people in cars and get out as quickly as possible. This plan will be executed before a pending emergency, if it is known, develops into a true emergency or as quickly as possible after an unsuspected emergency has occurred.

Page 4 of 6

4. What environmental hazards exist - exposure, flash flood, avalanche, weather, fauna, terrain, etc.? How will you manage these hazards?

Exposure to warm or cold temperatures are possible risks at the model port. Participants will be adequately informed of these risks prior to their participation in the activities and they will be instructed to dress and plan accordingly.

The risk of flash flood is also present at the model port. Sky condition will be monitored for the potential to produce adequate precipitation to induce a flash flood. If conditions appear to be conducive to flash flooding, training activities will cease and participants will evacuate the premises.

Weather is an important consideration in operating unmanned aircraft. As such, a thorough weather check will be accomplished prior to any training activities. If weather is not conducive to the intended operations the activities will be cancelled or rescheduled.

5. What hazards are inherent to the activity? How will they be managed?

The greatest hazard associated with the activity is the possibility of unmanned aircraft colliding with people, vehicles, or structures. Safety procedures will be exercised to minimize the potential for collisions. Each unmanned aircraft is insured with a \$1 million dollar liability insurance policy to provide for any mishaps which may occur.

Batteries are extremely reliable and defects or failures are extremely unlikely. Mismanagement of batteries may increase the terribly remote possibility of any hazards manifesting with the batteries. Good care will be given to batteries and their conditions.

- 6. What safety equipment is used and how is it inspected and maintained?
- The best equipment for the safety of the activity are in fact the unmanned aircraft and their associated sub-systems. This equipment has been well maintained and any defective components will be repaired or replaced before any further operations are attempted. Preflight inspections of the systems will be performed, and each unit deemed satisfactory, before any are allowed to fly.
- 7. What are your provisions for toilet facilities, dealing with human waste, and washing? How will you contain and remove trash and garbage?
- Toilet facilities and waste containers are available at the Three Peaks Model Port. All refuse will be deposited in appropriate containers.
- 8. Demonstrate how you will comply with other Federal, state and local laws pertaining to your activity, including but not limited to:
- a. If you are going to serve any food or beverage to a customer, show compliance with Utah State Law regarding food service sanitation. N/A
- b. If the activity will involve more than 500 people at a single activity or event, show how you will comply with Utah State Law regarding mass gatherings. N/A
- c. If your activity involves the use of water craft, show how you will comply with Utah State Boating Laws. N/A
- d. If you are providing in-patient or residential Wilderness Therapy for persons under age 18, show compliance with Utah State Law for wilderness therapy programs. N/A
- 9. If firearms are involved, what are the provisions for safe storage, transportation and use? N/A

Page 5 of 6

10. Does your operation use livestock for riding or packing? If so, identify the kind and number of animals to be used. Also, identify how the animals will be fed, watered, and confined when not being used. N/A

E. Staff Experience and Training

1. What level of first aid training would you require? Basic

2. What level of training or experience for the specific activity would you require? Highly specialized training in unmanned aircraft operations.

- 3. What is the level of knowledge of the natural resources and environment of the operations area? Adequate
- 4. If your activity involves visitation to cultural sites, pre-historic and /or historic sites, demonstrate a basic knowledge of the laws and regulations dealing with protection and preservation of antiquities, objects of historical interest, and graves. Demonstrate a factual knowledge of the sites to be visited. N/A
- 5. Have any of your company owners or employees been convicted of a Federal, state or local violation regarding guiding, outfitting, resources protection, or the activity proposed for this permit? No If so, provide details.

Page 6 of 6

6. Has your company or its owner(s)/operator(s) ever been denied a permit, had a permit revoked, or surrendered a bond related to a permit for operations on BLM or US Forest Service administered lands? No If so, provide details.

- F. Customer Information
- 1. Attach a copy of the customer contract including any risk acknowledgment and/or waivers. N/A (course syllabus is attached)
- 2. Attach a price list.

Each student has been billed \$680.00 to participate in the training activities.

- G. Other required permits
- 1. List any permits required by other Federal, state or local agencies to conduct your activity:
  - 333 exemption for unmanned aircraft operations required by Federal Aviation Administration
  - At least one participant must hold a Private Pilot or higher level pilot certificate required by the Federal Aviation Administration3357
- 2. List any permissions or contracts required to use private lands you do not own or control: N/A
- 3. List any permits, current or expired, you have held to conduct activities on BLM or U.S. Forest Service administered lands:

  None

IV. CERTIFICATION  I certify that the information given by me in this propo complete to the best of my knowledge. I acknowledge requirements and stipulations on Form 2930-1 and ar Authorized Officer may deem necessary. I further uncapillar to keep this Operating Plan or other permit requirements, suspension, or revocation of the permit. Signature	e that I am required to comply with the ny additional stipulations which the derstand that providing false information or

Page 6 of 6

6. Has your company or its owner(s)/operator(s) ever been denied a permit, had a permit revoked, or surrendered a bond related to a permit for operations on BLM or US Forest Service administered lands? No If so, provide details.

#### F. Customer Information

- 1. Attach a copy of the customer contract including any risk acknowledgment and/or waivers. N/A (course syllabus is attached)
- 2. Attach a price list.

Each student has been billed \$680.00 to participate in the training activities.

- G. Other required permits
- 1. List any permits required by other Federal, state or local agencies to conduct your activity:
  - 333 exemption for unmanned aircraft operations required by Federal Aviation Administration
  - At least one participant must hold a Private Pilot or higher level pilot certificate required by the Federal Aviation Administration
- 2. List any permissions or contracts required to use private lands you do not own or control: N/A
- 3. List any permits, current or expired, you have held to conduct activities on BLM or U.S. Forest Service administered lands:

None

IV.	CEI	RTIF	ICA	TIC	NC

I certify that the information given by me in this proposed Operating Plan is true, accurate, and complete to the best of my knowledge. I acknowledge that I am required to comply with the requirements and stipulations on Form 2930-1 and any additional stipulations which the Authorized Officer may deem necessary. I further understand that providing false information or failure to keep this Operating Plan or other permit requirements up-to-date are grounds for probation, suspension, or revocation of the permit.

Signature

Date 01 SEP 2015

Printed Name

Sean E-Heinler

*			
		•	
		÷	
	ie .		

#### **SYLLABUS**

Unmanned Aerial Systems Basics, PILT 1130, Section 01 MWF, 3:00 pm-3:50 pm, location TBA Fall 2015

#### FACULTY INFORMATION:

Sean Heiner

Phone: (435) 865-8067 Office: BU 303D

Office Hours: M-F 8:00 am-11:00 am, TR 1:00 pm - 4:00 pm

E-mail Address: seanheiner@suu.edu

COURSE DESCRIPTION: This course provides an introduction to unmanned aerial systems, their components, operational requirements, capabilities, and restrictions. It explores various unmanned aerial systems devices, roles, and applications. It includes the aeronautical, technical, and regulatory background knowledge necessary to be a well-informed, safe and educated unmanned aerial system operator/pilot. This course is intended to cover unmanned aerial systems flight training on a very basic and introductory level. Additional flight training and operational experience may be required to be successful in piloting or operating unmanned aerial vehicles in real-world missions.

REQUIRED TEXT(S): Unmanned Aircraft Systems: UAV Design, Development, and Deployment Reg Austin, First Edition, 2010, ISBN 0470058196

RECOMMENDED TEXT(S): Introduction to Unmanned Aircraft Systems, Richard K. Barnhardt and Stephen B. Hottman and Douglas M. Marshall J.D. and Eric Shappee, First Edition, 2011, ISBN 1439835209

#### REFERENCES:

Resources available from the Gerald R. Sherratt Library (SUU):

- 1. Unmanned Aircraft Systems [electronic resource]: strengths and weaknesses
- 2. Safety and Reliability in Cooperating Unmanned Aerial Systems [electronic resource]
- 3. Human Factors of Remotely Operated Vehicles [electronic resource] 1st edition

STUDENT LEARNING OUTCOMES: At the completion of this course students will possess basic skills in unmanned aerial operations. Students will demonstrate primary knowledge of the systems and components of unmanned aerial vehicles. Students will be able to evaluate potential missions and to compile the appropriate application of unmanned aerial systems to accomplish the desires of the missions.

SCHEDULE OF ASSIGNMENTS AND ACTIVITIES: This course consists of reading and study homework, topic quizzes, midterm and final exams, a practical exam of flying a drone and/or UAV simulator, and writing research papers.

#### **Course Sequence:**

- 1. Presentation of course outline, syllabus, and expectations
- 2. Introduction to UAS
- 3. definitions, abbreviations, and terminology
- 4. Aviation basics for UAS
- 5. UAS types and classifications
- 6. Components and systems
- 7. Navigational capabilities
- 8. UAS roles and applications
- 9. Payloads
- 10. Pilot
- 11. Payload Operator
- 12. Regulations and sanctioned operations
- 13. Flight training & UAS operation
- 14. Mission evaluation
- 15. Future of UAS

#### **Course Assessment**

Learning	Reading &			Qui	zzes								
Outcomes:	Homewor k	1	2	3	4	5	6	Midter m	Final	Fligh t Test	Pape r		
Demonstrate a thorough understanding of aviation basics that specifically pertain to the operation of unmanned aerial systems.	X	X					11	X	X				
Appropriately describe and use the various navigational capabilities of unmanned aerial systems.	X		X						X	X			
Demonstrate a basic	X	X						X	X				

understanding										
of definitions,										
abbreviations,										
terminology,										
and principles								1		
which pertain								,		
to UAS										
II .										
operations.										
Know material										
differences										
between										
available UAS										
components										
and identify	X			X				X	X	
the	Δ.			11				41.	11	
appropriate										
components								-		
for the										
intended										
application.										
Know material										
differences										
between										
available UAS										
systems and	X				X				X	
identify the										
appropriate										
systems for										
the intended										
application.										
Correctly										
classify										
unmanned										
aerial vehicles	l									
according to										
size, range,	<b>.</b>	,,						37	37	
technology,	X	X					-	X	X	
design										
considerations										
1										
, and			2			10				
operational						~				
capabilities.	7.		-			17			v	X
Gain a sense	X					X			X	A
of the various										
roles and										
potential										

applications of			1 1	_			
unmanned							
				- 1			
aerial systems							
today and in							
the future.							
Describe							
various							
payload							
options and							
identify the	37.7		l I.				
appropriate	X			$X \mid$	X		X
payload							
option for the							
intended							
mission.							
Demonstrate							
the ability to			1 1				
conduct safe						X	
and successful						41	
UAS							
operations.							

## COURSE REQUIREMENTS:

#### Grades

Grades will be calculated according to the following:

Quizzes 20% of final grade
Midterm 20% of final grade
Papers 20% of final grade
Flight Test 10% of final grade
Final 30% of final grade
100%

Letter grades will be calculated as follows:

94% and above $\rightarrow$ A 83-86% $\rightarrow$ B 73-76% $\rightarrow$ C 60-66% $\rightarrow$ D 90-93% $\rightarrow$ A- 80-82% $\rightarrow$ B- 70-72% $\rightarrow$ C- below 60% $\rightarrow$ F 87-89% $\rightarrow$ B+ 77-79% $\rightarrow$ C+ 67-69% $\rightarrow$ D+

#### **Course Fees**

A UAS flight training fee of \$680.00 was paid with the registration of this course. An Undergraduate Business Fee of \$6.75 was also paid at registration. These are discretionary funds for the School of Business.

ACADEMIC INTEGRITY: Scholastic dishonesty will not be tolerated and will be prosecuted to the fullest extent. You are expected to have read and understood Policy 6.33 Academic Integrity

and the current issue of the student handbook (published by Student Services) regarding student responsibilities and rights.

ADA STATEMENT: Students with medical, psychological, learning or other disabilities desiring academic adjustments, accommodations or auxiliary aids will need to contact the Southern Utah University Coordinator of Services for Students with Disabilities (SSD), in Room 206F of the Sharwan Smith Center or phone (435) 865-8022. SSD determines eligibility for and authorizes the provision of services.

EMERGENCY MANAGEMENT STATEMENT: In case of emergency, the University's Emergency Notification System (ENS) will be activated. Students are encouraged to maintain updated contact information using the link on the homepage of the *mySUU* portal. In addition, students are encouraged to familiarize themselves with the Emergency Response Protocols posted in each classroom. Detailed information about the University's emergency management plan can be found at <a href="http://www.suu.edu/ad/facilities/emergency-procedures.html">http://www.suu.edu/ad/facilities/emergency-procedures.html</a>

HEOA Compliance statement: The sharing of copyrighted material through peer-to-peer (P2P) file sharing, except as provided under U.S. copyright law, is prohibited by law. Detailed information can be found at <a href="http://www.suu.edu/it/p2p-student-notice.html">http://www.suu.edu/it/p2p-student-notice.html</a>.

DISCLAIMER: Information contained in this syllabus, other than the grading, late assignments, makeup work, and attendance policies, may be subject to change with advance notice, as deemed appropriate by the instructor.)

\*\*